A tale of two sisters

The University of Birmingham School of Dentistry moved, over Easter, to a splendid, bright, airy, state-of-the-art new building (Figure 1) close to the site of the old BBC Pebble Mill studios. While much planning has gone into this, the actual moving of countless offices has made for much work for all concerned. Readers who have recently moved house, office or surgery, will realize how much! It goes without saying that, during such a move, one has to assess what needs to be kept and what needs to be thrown out, and this necessitates stopping the tidying and reading documents, papers and the like, just in case they might be of future importance. I was diverted in my filing of bin bags to read many a paper that I had long forgotten, including one that I wrote almost 30 years ago!!

This described the treatment of two identical twin sisters (sisters J and K) (Figures 2 and 3) who presented for treatment when they were 20 years of age. Both had congenitally absent maxillary lateral incisor teeth, and both had received orthodontic treatment at age 16 years, when a decision was made to approximate the canines and central incisors because there was only space for one tooth width. Accordingly, the residual space was left in the upper left canine/premolar region for both sisters. Each sister was wearing a partial denture, and both expressed a desire to receive fixed bridgework. Both sisters had a midline diastema, one being 1.5 mm and the other of 2.5 mm, but neither expressed a desire to have these closed. However, that was where the similarities ended, since one sister requested treatment which would allow the upper canine teeth to simulate lateral incisors and the occlusal relationship was deemed unsuitable for the provision of a resin-retained bridge for one sister. Accordingly, one sister received a resin-retained bridge and the other a fixed bridge using the upper left canine and premolar as abutments. Whether, today, the bridge design would include two teeth rather than a cantilever, is a matter for conjecture.

At the time of writing, in 1998, the resin-retained bridge was a relatively new treatment modality and the paper goes into the pros and cons of these in detail. Undergraduates now learn these techniques – minimal tooth preparation, no temporary required, supragingival margins, no dentine involvement, reduced chair time and the associated reduced cost. Roll on almost 30 years since this treatment was completed – what may have happened to the two sisters? I left my practice ten years after the treatment was completed, so I don’t know for sure.

Two teeth were prepared for full coverage metal-ceramic crowns for sister J’s conventional metal-ceramic bridge. Two teeth received minimal slice preparations for sister K’s adhesive bridge and her maxillary canine teeth received composite build-ups so that these teeth could simulate lateral incisor teeth as much as could be possible (Figures 4 and 5). The literature

Figure 1. The new dental school in Birmingham. (Courtesy of Katie Oakley, Senior Clinical Photographer.)
Comment

tells us that the conventional bridge survival will be in the region of 73% after ten years and
the resin-retained bridge 65% at the same time, although the resin-retained bridge may have debonded on a number of occasions during that time. But, what is the risk of pulp death in relation to the tooth preparations? Nineteen per cent in one publication, with a recent publication concluding, somewhat scarily, that 'it is not currently possible for clinicians to know the thickness of residual dentine following crown preparation, a key factor in long term outcome'.

Not many readers will have the salutary lesson which is to look back at treatments that one prescribed many years previously. The principal lesson that is learnt is that everything that we do fails. What matters more is that the underlying tooth survives – it is longevity of teeth rather than longevity of restorations that is important. So which sister is still likely to have an intact dentition? The answer may be clear, namely, the sister whose teeth were not prepared, although the paper describing the treatment mentions that, if the resin-retained bridge fails, the ‘conventional fixed alternative is always available’. At the time of writing the paper, the resin-retained bridge was in its infancy and, 30 years on, the techniques, and in particular the luting materials, have shown great improvement. So, despite the potential for debonding of sister K’s resin-retained bridge, it could be hoped that, if and when the bridge is deemed a failure, a new resin-retained bridge manufactured in contemporary materials and luted with an improved resin cement could be placed. For sister J, however, despite reasonably minimal crown preparations, the risk of pulp death in due course must always be an anxiety.

Hopefully, readers will have not failed to note the play on words! In 1859, Charles Dickens wrote A Tale of Two Cities, a novel set in London and Paris before and during the French Revolution. Arguably, its most famous lines were:

'It was the best of times, it was the worst of times. It was the age of wisdom, it was the age of foolishness, is was the epoch of belief, the epoch of incredulity.' I will leave readers to decide, with the benefit of hindsight, which sister received the best of bridges, and which sister the worst of bridges, although we did not know which at the time that the paper was written.

Finally, Dental Update has been in the forefront of the campaign to educate readers in the advantages of using materials which have a firm research base as opposed to the potential own label brands which do not. Given that, the money saved by purchasing a me-too product are likely to be negated by a premature failure of a restoration. The lead article in this issue adds another worry to this scenario, namely, that there are imitations available out there which might look good, but not perform anything like as well as their bona fide originals. The saying ‘It’s too good to be true’ when applied to price generally indicates that the product is indeed too good to be real.

Footnote:

It is worth recalling that, in the pre-digital era, we used film in our cameras! The reason for the different hue of Figure 4 from the others is likely to be because a different make/type of film has been used for this particular illustration, demonstrating one of the many hazards of the pre-digital era. We now take digital photography for granted: we could have altered the colours of these illustrations before publication in this issue of Dental Update, but this illustrates a point!

References
5. Dickens C. A Tale of Two Cities. Book the first, Chapter 1.